

Customer No.: 31561
Application No.: 10/064,766
Docket NO.:8043-US-PA

REMARKS

Present Status of the Application

It is noted with great appreciation that the Office Action considers claims 1-4 allowed. The Office Action, however, has rejected claims 5-7 as being anticipated by Wu (US 6,482,744) and claims 8-10 as being unpatentable over Wu (US 6,482,744).

After carefully considering the remarks set forth in this Office Action and the cited references, Applicants respectfully submitted that the presently pending claims are in condition for allowance. Reconsideration and withdrawal of the Examiner's rejection are requested.

Discussion of the 35 U.S.C § 102 & 103 Rejections

The Office Action rejected claims 5-7 under 35 U.S.C. 102(e) as being anticipated by Wu et al. (US 6,482,744).

As described in detail hereinafter, Applicants respectfully submit that Wu is legally deficient for the purpose of anticipating claims 5 because Wu fails to disclose each element of the claim under consideration.

The present invention teaches in claims 5 and 8, among other things, performing the etching process with a height of the susceptor in the etching chamber being adjusted to an

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optimum height that results in a minimum deviation of etching depth of the material layer in the etching process. In other words, the present invention teaches identifying one optimum height for the susceptor in the etching chamber such that there is a minimum deviation of the etching depth of the material layer. The entire etching of the material is then completed at that optimum height. As a result the uniformity of etching is improved.

Wu, on the other hand, teaches varying the spacing D between the susceptor 105 and the upper electrode 111 during the entire etching process (col. 3, ln 14-18). The etching of Wu is first performed having a larger spacing D for a predetermined amount of time, such that the etching rate at the center part of the wafer will be faster than at the edge. The etching is then continued having a narrower spacing D for another predetermined amount of time such that the etching rate in the edge of the wafer will higher than in the center (col. 3, ln 16-41). First at all, it is readily obvious that at the larger spacing and the narrower spacing where the etching process being conducted by Wu, a minimum deviation of the etching depth of the material layer can not be obtained. Second, Wu absolutely fails to teach or suggest selecting an optimum height for the susceptor to perform the entire etching process and to achieve an improved uniformity in etching. Instead, Wu performs the etching process at more than one height. Further, claim 8 of the present invention teaches performing a corner-rounding etching process, which such a feature is completely absent from Wu. Therefore, Wu fails to render the present invention anticipated or obvious.

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For at least the above reasons that Wu fails to teach or suggest each element in the claims, Applicants respectfully assert that claims 5 and 8 patentably define over Wu. Since claims 6-7 and 9-10 are dependent claims which further defines the invention recited in claims 5 and 8, respectively, Applicants respectfully assert that these claims also are in condition for allowance. Thus, reconsideration and withdrawal of this rejection are respectively requested.

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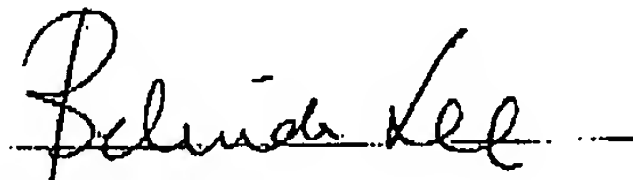
CONCLUSION

For at least the foregoing reasons, it is believed that the presently pending claims 1-10 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,

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